

Grand Blanc Township in a Global Knowledge Economy

Kenneth E. Corey, Ph.D.

*Professor of Geography and Urban Planning
Michigan State University*

John Melcher, M.S.

*Associate Director
Center for Community and Economic Development*

Faron Supanich-Goldner, M.S.W.

*Community Development Specialist
Center for Community and Economic Development*

Kyle Wilkes, B.S.

*Outreach Specialist
Center for Community and Economic Development*

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Presentation Objectives:

- Introduce key concepts and characteristics of the global knowledge economy
- Summarize relevant empirical findings
- Consider implications for local and regional planning and development
- Offer initial reactions to Technology Village Area Plan



Characteristics and Concepts of the Global Knowledge Economy



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Characteristics of a Global Knowledge Economy

- *Information and communications technologies and knowledge* are transforming wealth-creating work **from physically-based functions to knowledge-based functions**
- Beyond labor and capital, there is **increasing reliance on technology and knowledge** as factors of production, wealth creation, and productivity improvement



Emergence of a Network Society

- Society is becoming organized around the **space of flows** and **timeless time**
- Global electronic networks enable **greater flows of capital and information** that facilitate management
- Value-added organization and knowledge **increases competitiveness and productivity**
- The result is an **open network with unlimited expansion opportunities**



Globalization and its Consequences

- **De-territorialization:** Society no longer behaves only in territorial terms, as our collective perception of distance has changed
- **Liberalization:** Human-made barriers are lowered or removed to facilitate the exchange of goods and ideas



Consequences of Globalization

- **Universalization:**

THE DESIRE TO ADVANCE + NEW COMMUNICATION TECHNOLOGIES
= GLOBAL CONNECTEDNESS AND INTERDEPENDENCE

- **Internationalization** results from enhanced cross-border relations

- **Modernization** or “westernization” emerge as new problems



Summary of Findings from Recent Empirical Research



Knowledge Economy Wage Trends

Average wages

(United States, 2002)

- Knowledge Economy occupations = \$ 64,161
- All Other occupations = \$ 34,934

Growth rates

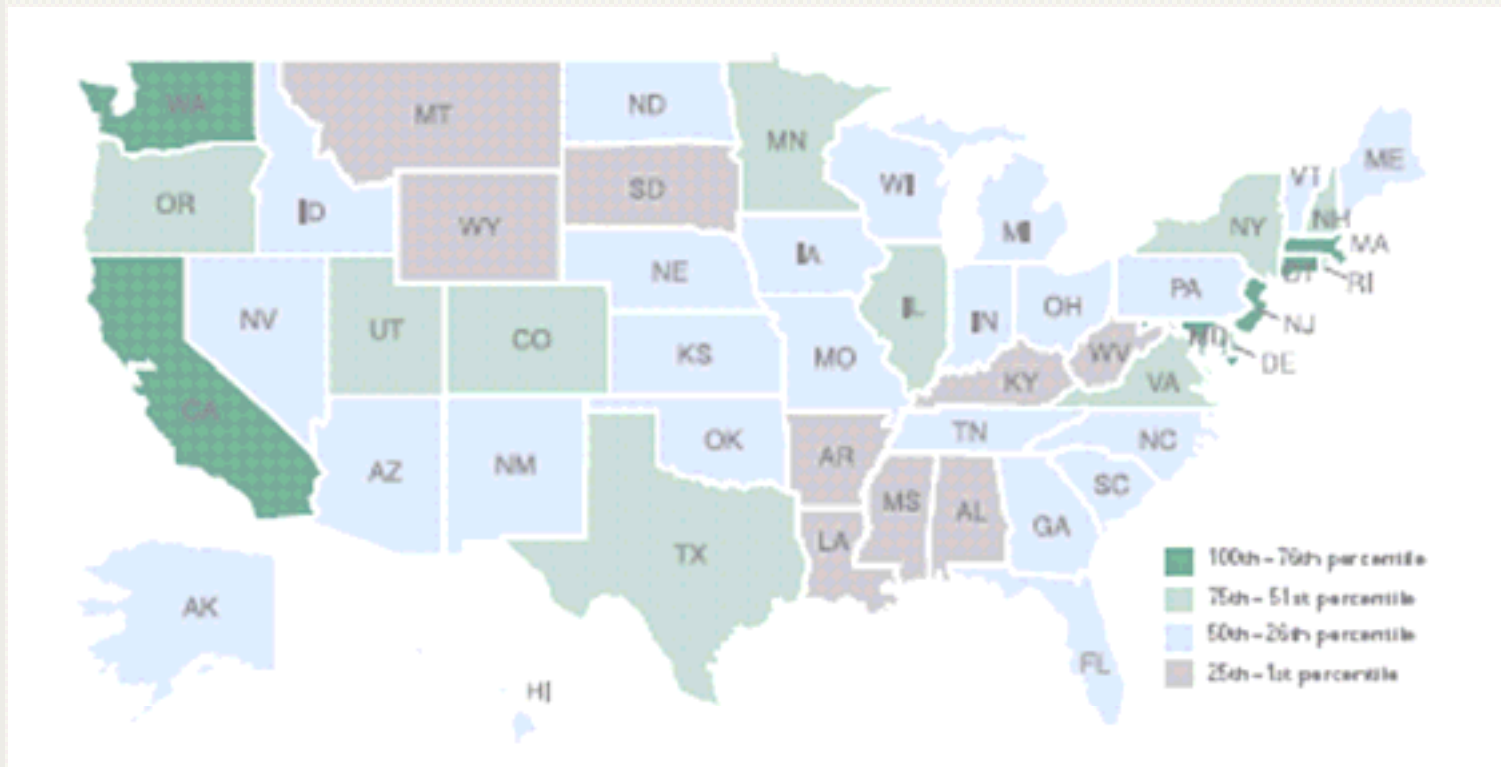
(U.S. and Michigan, 2004-14)

	<u>Knowledge Economy</u>	<u>All Other</u>
U. S.	17.2%	12.1%
Michigan	11.3	6.9

Source: U.S Bureau of Labor Statistics www.bls.gov and Michigan Labor Market Information (www.milmi.org).



New Economy Project: Progressive Policy Institute / ITIF

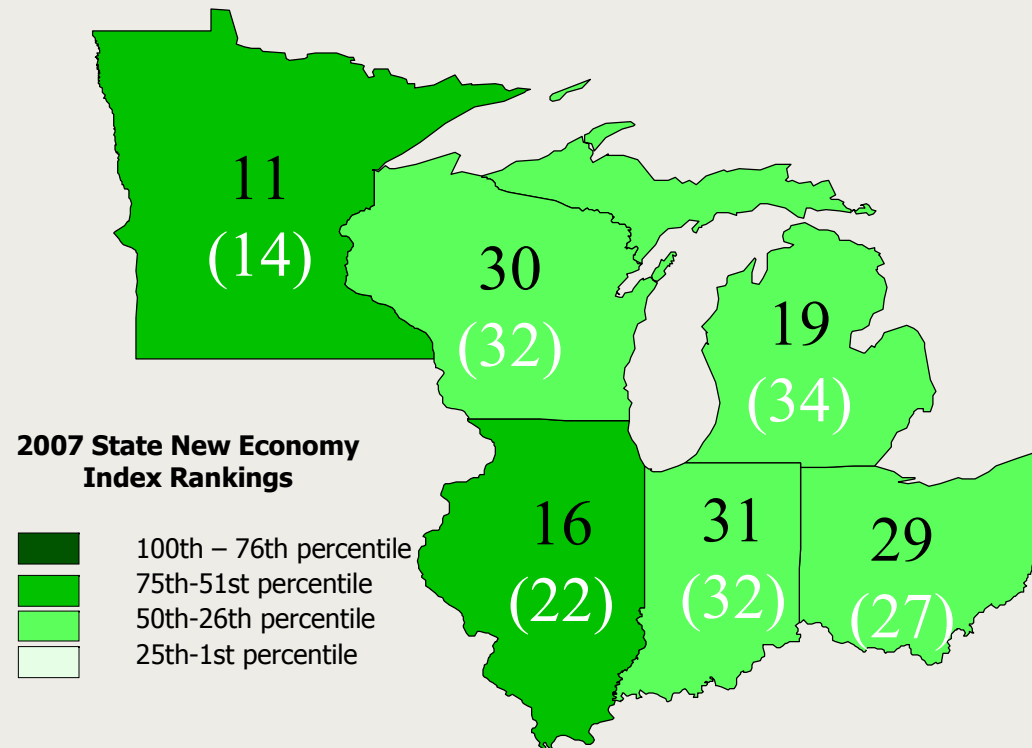


State New Economy Index 2007

Source: www.itif.org, 2007



Michigan's Knowledge Economy Ranking Relative to Neighbor States



New Economy Index Rankings for Great Lakes States
2007 Rank (1999 Rank)

Sources: www.itif.org, 2007
and www.ppionline.org, 1999



Michigan County Index

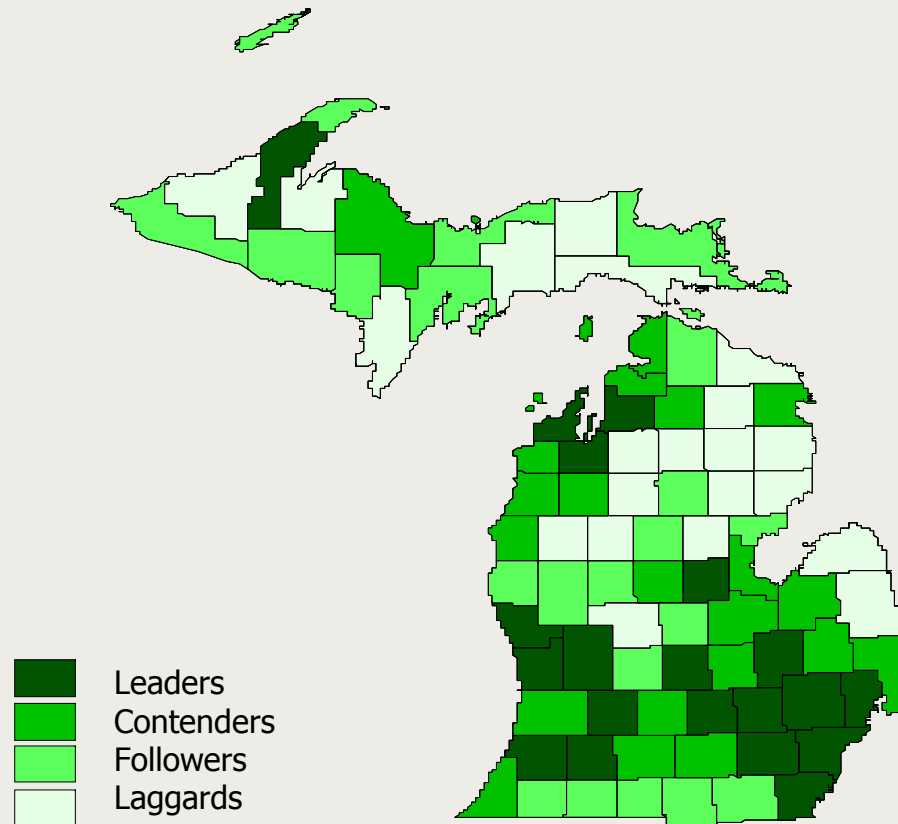
- Adapted State New Economy Index to Michigan counties
- Sixteen indicators in 5 categories:
 - **Knowledge Jobs:** IT-sector jobs, Managerial and professional jobs, Workforce education
 - **Innovation:** High-tech sector jobs, Venture capital firms, Patents, Engineers, Bioscience jobs
 - **Digital Economy:** Internet use, Cable modem access, Digital government
 - **Globalization:** Firms with foreign parents, Exporting firms
 - **Economic Dynamism / Creative Community:** Changes in employment in sole proprietorships, manufacturing sector, and service sector



Michigan Knowledge Economy Index Overall Rankings by County

Top Five Counties

1. Oakland
2. Washtenaw
3. Ingham
4. Kent
5. Ottawa

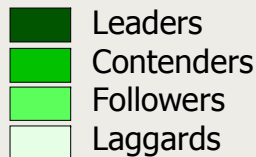
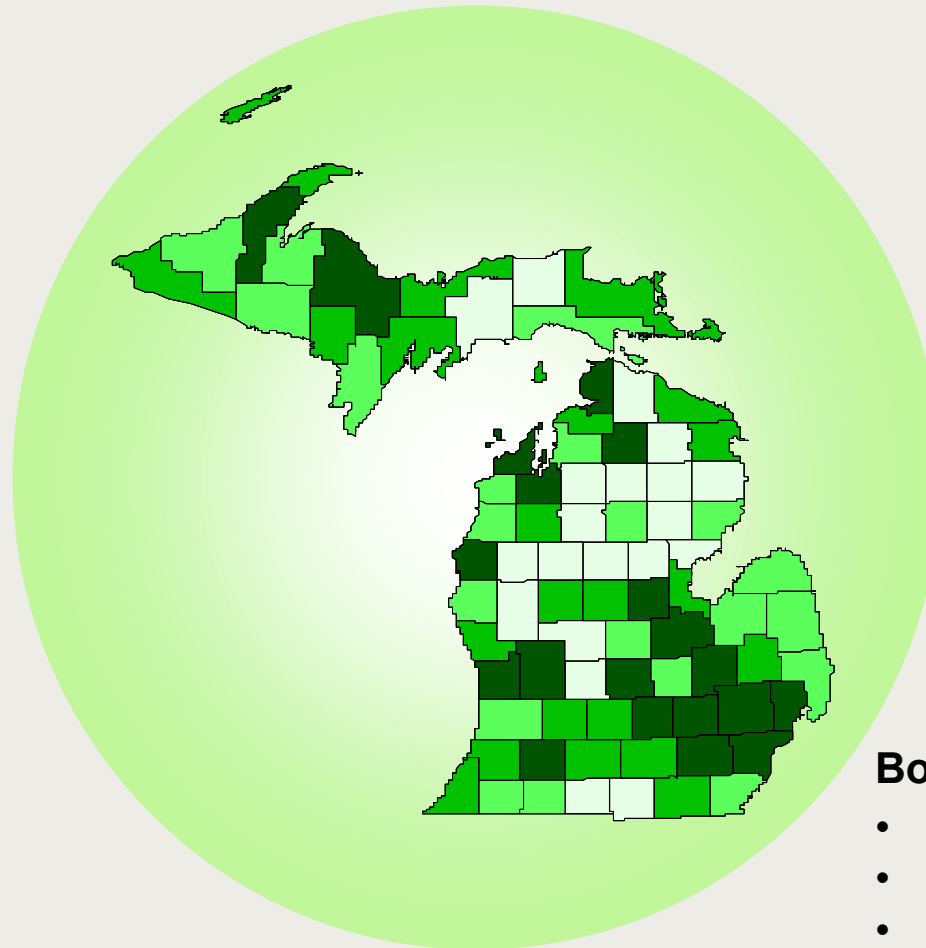


Source: MSU Knowledge Economy Research Group
MSU Center for Community and Economic Development

Knowledge Jobs Category

Top Five Counties

- Washtenaw
- Oakland
- Ingham
- Kalamazoo
- Leelanau



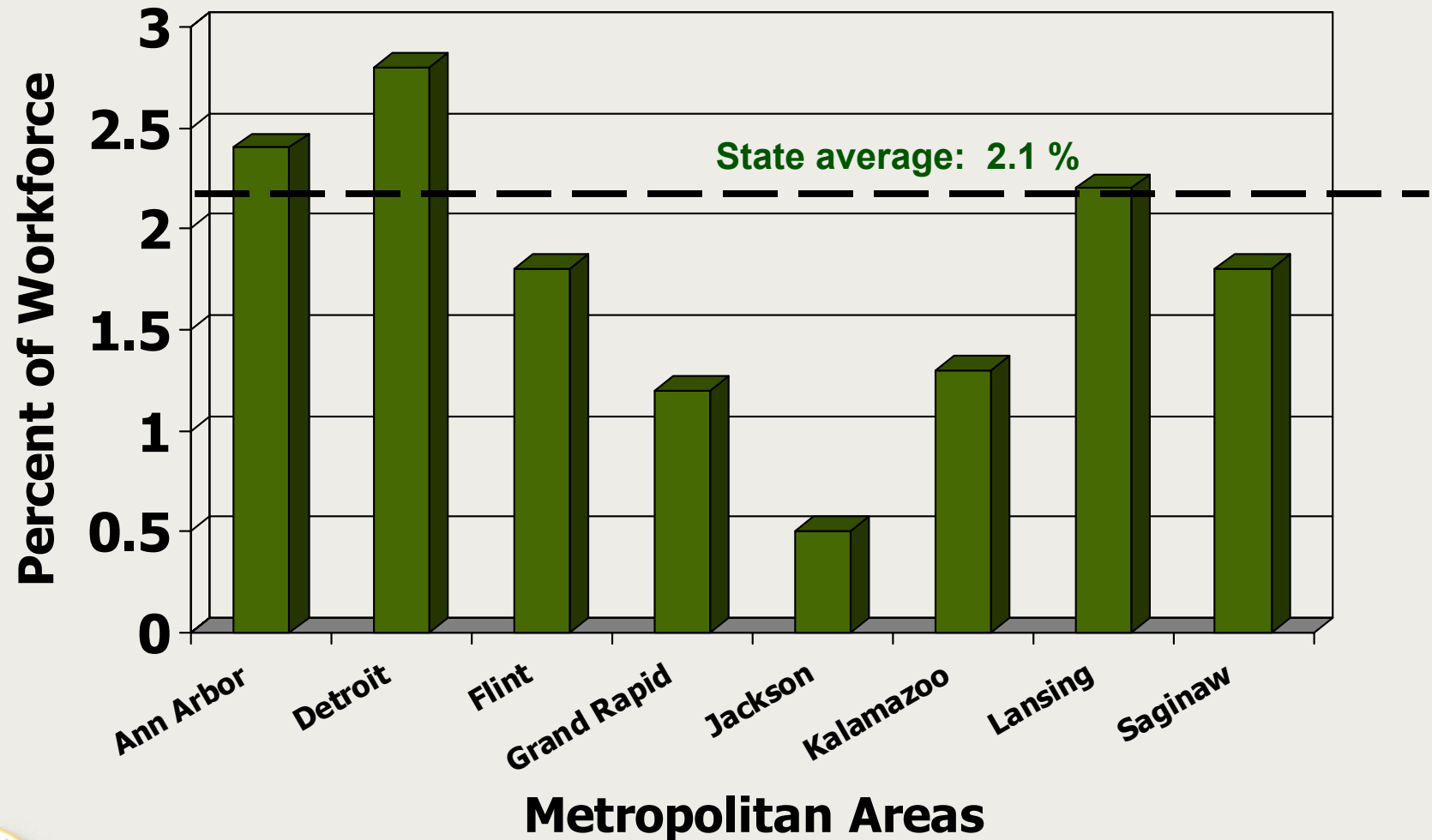
Bottom Five Counties

- Lake
- Kalkaska
- Montmorency
- Ionia
- Missaukee



Source: MSU Knowledge Economy Research Group
MSU Center for Community and Economic Development

IT-Sector Jobs Indicator



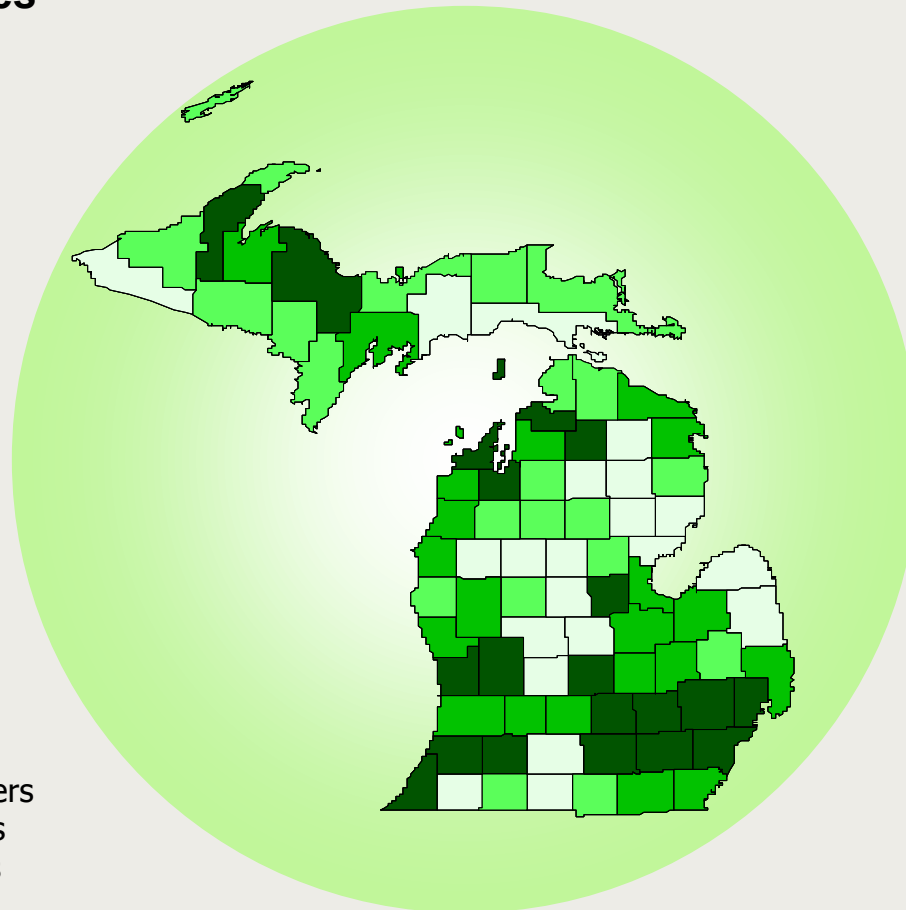
Source: 2000 County Business Patterns (NAICS), U.S. Census Bureau



Innovation Category

Top Five Counties

- Washtenaw
- Oakland
- Ingham
- Midland
- Houghton



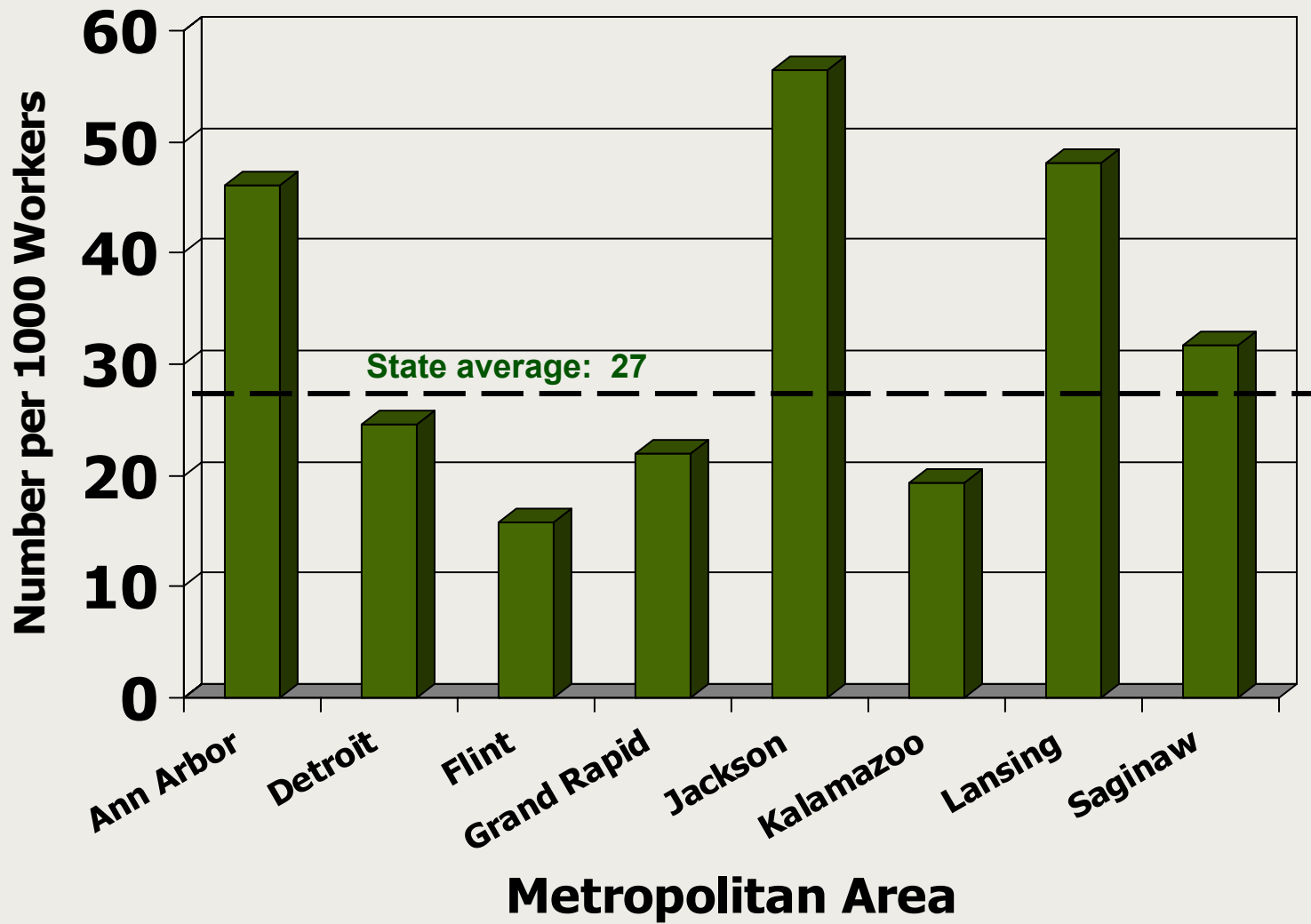
Bottom Five Counties

- Montcalm
- Clare
- Sanilac
- Oscoda
- Cass



Source: MSU Knowledge Economy Research Group
MSU Center for Community and Economic Development

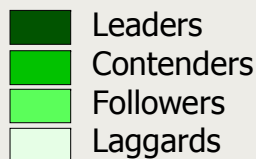
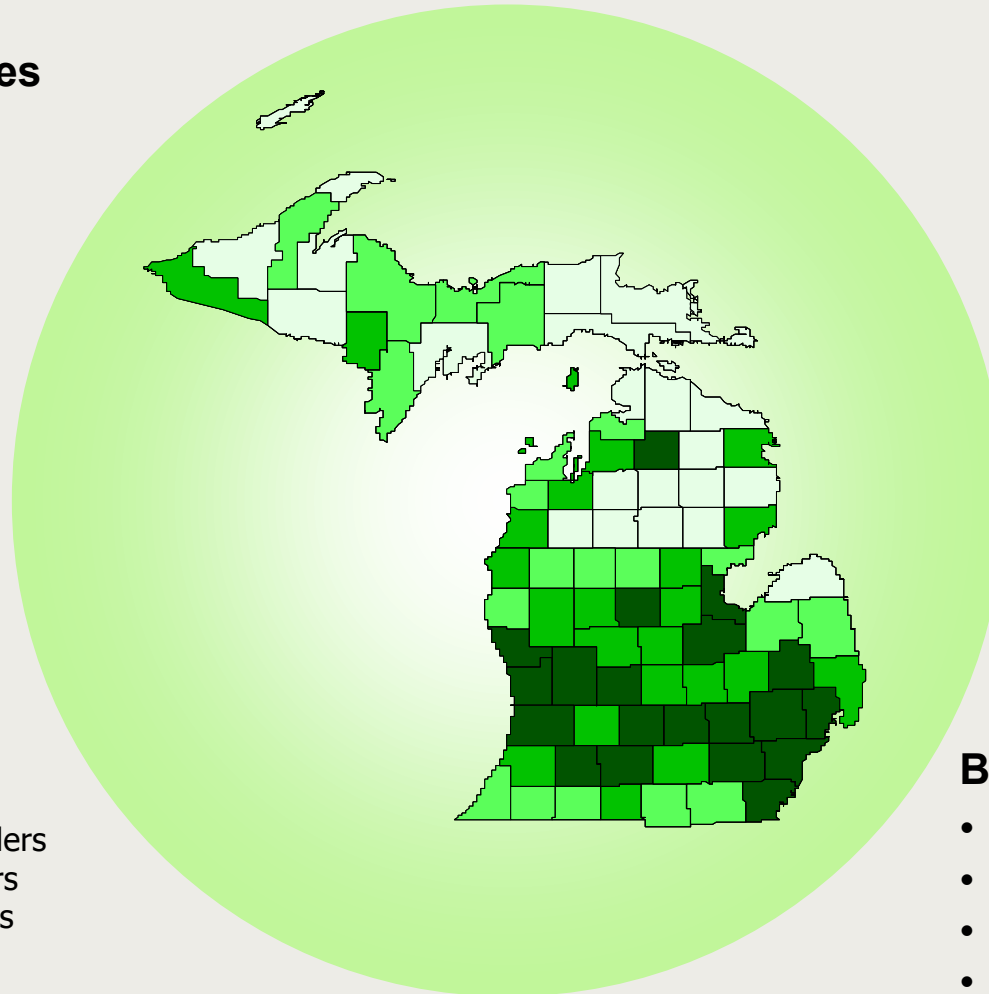
Professional Engineers Indicator



Digital Economy Category

Top Five Counties

- Ottawa
- Kent
- Allegan
- Muskegon
- Bay



Bottom Five Counties

- Oscoda
- Montmorency
- Roscommon
- Presque Isle
- Luce

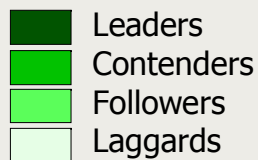
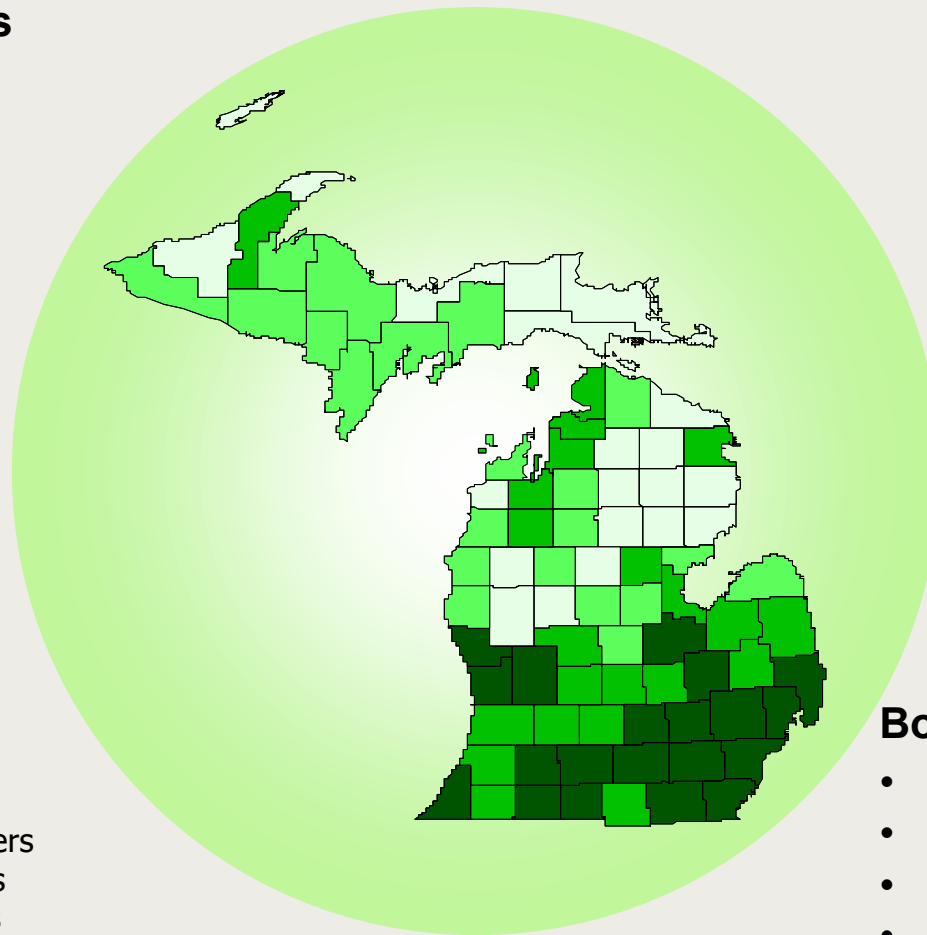


Source: MSU Knowledge Economy Research Group
MSU Center for Community and Economic Development

Globalization Category

Top Five Counties

- Oakland
- Wayne
- Kent
- Macomb
- Washtenaw



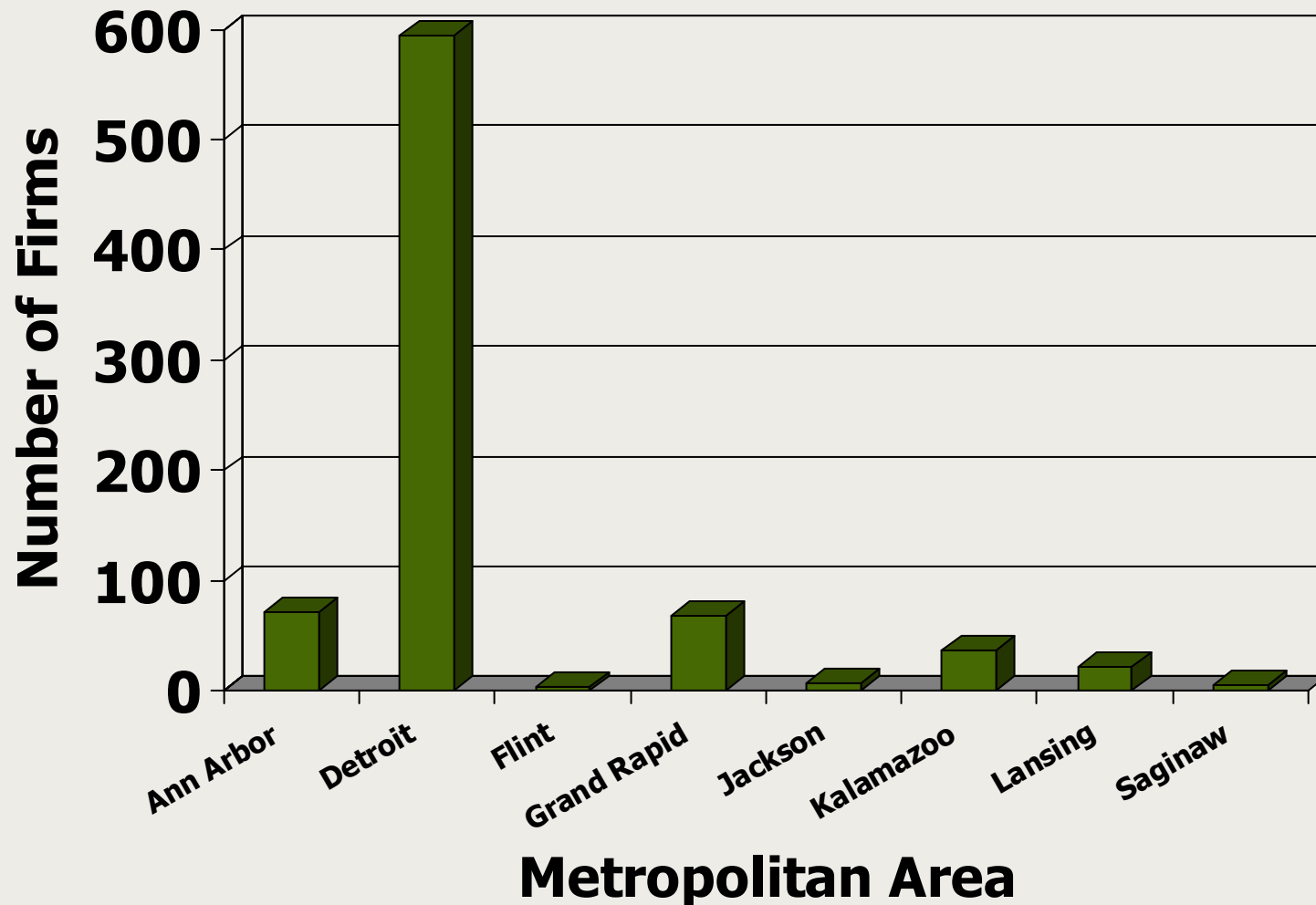
Bottom Five Counties

- Presque Isle
- Newaygo
- Montmorency
- Mackinac
- Luce



Source: MSU Knowledge Economy Research Group
MSU Center for Community and Economic Development

Firms with Foreign Parents Indicator



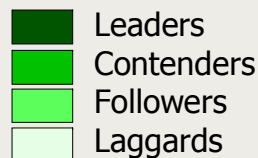
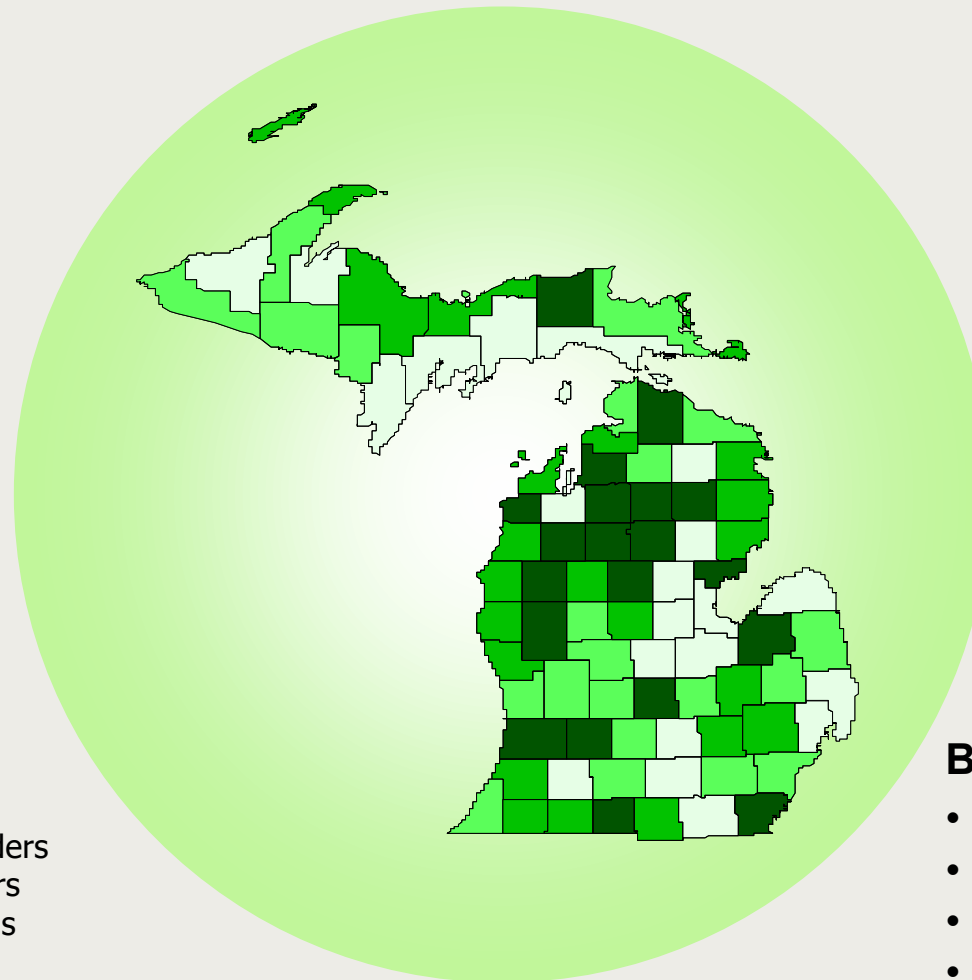
Source: Michigan Economic Development Corporation

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Economic Dynamism Category

Top Five Counties

- Clare
- Lake
- Crawford
- Barry
- Benzie



Bottom Five Counties

- Bay
- Mackinac
- Lenawee
- Menominee
- Jackson



Source: MSU Knowledge Economy Research Group
MSU Center for Community and Economic Development

Innovation-to-Commercialization Continuum



CONCEPTION - INVENTION - PROTOTYPE - COMMERCIALIZATION



Taking Action!

Implications of the Global Knowledge Economy for Planning and Development Practice



Taking Action: Five Essential Goals

- Seek to generate **actionable knowledge** that **informs investment priorities and decisions**
- Five strategic goals are essential:
 - **Governance**
 - **Human capital** development
 - **Enterprise culture** development
 - **Equity**
 - **Knowledge-based** planning mindset
- Ultimate outcome is **Intelligent Development**



Governance (Distinct from “government”)

- Government as a leader, promoter of vision, BUT, it is one among other stakeholders
- Review policies. Both public & corporate, and adopt new-economy planning foci
- There is a likely need to create new knowledge economy governance structures
- Partner with business, government, institutions and individuals
- Develop alliances and partnerships to advance vision & mindset change



Develop Human Capital

- Human capital: the accumulation of knowledge, experience, skills, and abilities – the application of which may lead to the production of intellectual property, goods and services that add value in the marketplace
- Education & training as principal investment for the knowledge economy to generate talent (but subject to the “leaky bucket” dilemma)
- “Human capital,” beyond education, includes health, environment, and quality of life factors
- Fosters innovation, creativity and development in city-regions



Develop an Enterprise Culture

- Enterprise Culture: Pervasive area-wide attitude in which there is capacity and readiness to take initiative and be entrepreneurial, innovative and self-reliant
- Goal: to create sustained enterprise culture in the city-region and its firms, institutions & individuals
- Entrepreneurship and innovation are supported and championed, continuously and pervasively
- Establish strong links to human capital promotion
- Major characteristics
 - Fresh (youthful) dynamism, entrepreneurial risk taking
 - Ability to vary skills in response to market demand
 - Creativity, imagination & futures orientation



Ensure Equity

- Returns on education and training usually lead to **less equity**, often in the form of greater **income polarization**
- ICT flattens differences and makes places more competitive and subject to cost pressures, e.g., off-shoring and automation
- However, continuing unevenness in ICT access should not be left unaddressed
- Support for knowledge-based growth needs to be balanced by attention to economically distressed districts & groups
- Social and environmental justice should be analyzed with policies / priorities set for investment



Achieve Mindset Change

- Intellectual foundation (Howard Gardner)
- Three sets of factors
 - 7 **levers** of mind change:
 - reason, research, resonance, re-descriptions, resources/rewards, real world events, resistances
 - 6 arenas or **realms** of mind change:
 - **heterogeneous groups** (including non-Western thought); **homogeneous groups**; by means of **works of art, science & scholarship**; changes within **formal instructional settings**; **intimate forms** of mind changing involving two people or a small number, such as family members; **and changes within one's own mind**
 - 4 **entities** of mind change:
 - concepts; stories; theories; skills/practices
- Mindset change begins with **awareness**



A Means to Realizing Vision

- *Intelligent Development*

- It is today's locally-unique value-added content & city-region's assets
- Builds on the goal of universal digital infrastructure roll-out & continuous modernization, i.e., digital development
- Uses best planning practices and benchmarking – but not copying; must lead to
- Investments in places and regions for wealth creation, higher wage employment and improved quality of life via human capital development and enterprise culture development
- Develops a community and region holistically and equitably while recognizing amenity factors and quality of life functions
- Draws on contemporary research, theory & methods

**THIS IS THE END-STATE GOAL OF
NEEDED MINDSET CHANGE**



Knowledge-Based Planning Mindset

- To change the planning mindset is imperative!
- **Mindset change** should be implemented by:
 - Engaging in **multi-sectoral** development, **digital** development and **intelligent** development planning
 - Explicit and intentional planning and implementation **behavior change to advance best practice** under the changed mindset
 - Local and external **branding** practices



The ALERT Model

- Begin with **Stakeholders and Organization**
- **A** wareness = The Evidence
- **L** ayers = The Context
- **E**-Business Spectrum = The Content
- **R** esponsiveness = Demands and Needs
- **T** alk = Engagement & Continuous Planning



The "Business" of Electronic-Driven Economic Development & Network Linkages

Production Functions (new & existing)	Consumption (e-commerce) Functions	Amenity and Quality of Life Factors
Science & Technology-driven Research & Development (C)	Online Procurement: B2B & B2G & G2G (D) Trade & Supply Chain Mgt (D)	Innovative Social, Cultural and Institutional Activities (C&D) Creative Economy (C&D)
Commercialization of Products & Services (C) Informatization of existing activities (C&D)	Online Retailing: B2C & G2C (D) Delivery of & or Education about Health Financing & Health Care Services (C&D)	Modern Infrastructure – facilities & equipment (C&D) Natural Environmental Attributes (C) Seek Universal Broadband Rollout, Access & Connection (C&D)
Business & Producer Services (C) & Manufactured Products (D) Public & Government Producer Services (C&D), e.g., regulations, taxes, info, etc. Environmental and health services (C&D) Financial Services (C&D)	Value-Added Complementarities between Electronic (clicks) & Physical (bricks) Channels (C&D) Financial Services (C&D) F2F & E2E Interdependencies (D) Social Networking P2P & A2A (D)	High Quality Education & Human Capital Capacity Building and Talent Development (C&D) Leading to Higher-wage & Higher Talent Job Creation & Retention (C&D) Strategize F2F Occupations (C) Housing Options & Tolerant Culture (C)

Different geographies: the functions and factors that are characterized by clustering and spatial concentration are identified with a "C." Those that are characterized by dispersion and spatial deconcentration are identified with a "D."



E-Business Spectrum: Planning Policies

Planning for Your Region & Its Localities to do the "Business" of Electronic-Driven Economic Development

Production Functions	Consumption (e-commerce) Functions	Amenity and Quality of Life Factors

The functions and factors that are characterized by clustering and spatial concentration are identified with a "C." Those that are characterized by dispersion and spatial deconcentration are identified with a "D."



Translational Research (TR)

- Using medical research and practice as the model, TR should be established & practiced in the region
- Through systematic learning from clinical practice, basic research is advanced; WHILE from basic research findings, clinical practice is advanced
- Relationships between local development practitioners & development researchers/ academics need to be institutionalized in the region via universities, community colleges and individuals
- These relationships also contribute to the advancement of mindset change of the region



For More Information

Michigan State University

Center for Community & Economic Development

1801 W. Main St.
Lansing, MI 48915
Phone: (517) 353-9555
Fax: (517) 484-0068
E-mail: ced@msu.edu

www.ced.msu.edu

www.planningpractice.org

